

Woody Plants of Ghana with special reference to Their Uses

By R. F. Irvine. Pp. xcv + 868 + 34 plates. (London: Oxford University Press, 1961.) 105s. net.

THIS beautifully produced book, illustrated by 142 full-page line drawings and 34 plates, is primarily concerned with the useful properties of Ghana's trees and shrubs. It incorporates much of the material in Dalziel's *Useful Plants of West Tropical Africa*, and supplements it with Dr. Irvine's own extensive knowledge of this subject. There is a wealth of fascinating information on economic products and medicinal properties, both factual and fancied, for the 'doctrine of signatures' is implicit in much of African medicine. This is ably supported by a comprehensive series of indexes and glossaries, and by an extensive collection of vernacular names.

The purely botanical part of the book is less happily conceived. Each species is accompanied by a short botanical description, but this is quite inadequate to enable the species to be identified and there are no keys, while the errors in nomenclature are numerous. The citation of individual specimens seems unnecessary in a book which is not primarily a taxonomic work, and it is surely pointless to cite unnamed species known only from incomplete specimens when they have no known uses.

It is understood that this volume is to be followed by another on the herbs of Ghana. It is suggested that much of the botanical detail might profitably be omitted, leaving the author free to concentrate on the useful properties where he is clearly an expert, and enabling the publishers to offer the book at a cheaper price.

W. D. CLAYTON

Re-educative Treatment of Suppression Amblyopia
Being an abridged English version of Jean Sédan's "Post Cure de l'Amblyopie Rééduquée". By T. Keith Lyle, Cynthia Douthwaite and Jill Wilkinson. Pp. xii + 135. (Edinburgh and London: E. and S. Livingstone, Ltd., 1960.) 25s. net.

THIS is an English version of Dr. Jean Sédan's well-known compilation of test types and pictorial exercises designed for use in the treatment of amblyopia associated with unioocular strabismus. Dr. Keith Lyle, who was responsible for the preparation of this version, states in his preface that he has found Sédan's methods of the greatest value in the work of the Orthoptic Department at Moorfields Eye Hospital, London.

Three types of exercise are represented. In the first, the patient is required to detect misprints in test passages in a variety of sizes of print. In the second, he has to solve simple problems or detect errors in exercises presented in numerical, diagrammatic or pictorial form. (Some of the pictures are delightfully French.) In the third, there is a number of special exercises intended for patients with eccentric fixation or related disturbance of spatial localization.

It is unfortunate, perhaps, that no evidence as to the efficacy of these procedures is presented. None the less, Sédan's methods would seem very well worthy of trial in the treatment of squint and related conditions in which systematic eye-exercises are prescribed. Some of his material, too, might find useful application in the study of other types of visual disorder, in particular the defects of perception which may result from injury or disease of the brain.

O. L. ZANGWILL

Inductive Probability

By John Patrick Day. (International Library of Philosophy and Scientific Method.) Pp. xvi + 336. (London: Routledge and Kegan Paul, Ltd.; New York: The Humanities Press, 1961.) 40s. net.

THE author of this book has performed a most valuable service. This consists essentially in treating his subject philosophically rather than in the more 'restricted' sense as an essay in logic. That little mathematical knowledge is required of the reader is neither here nor there: the approach is not esoteric. Probability as a concept is used by many professional people, but even ordinary mortals use it quite widely. Much the same can be said of evidence. The writer comments on the advantages and disadvantages of the jury system: on balance, it comes out on the right side, in spite of the fact that sheer quantity of evidential material is a strain on the layman. This is only another example of our national inclination to keep the expert in his place.

The scheme of the present volume comprises a full discussion of inductive probability, subject-predicate formulae, functional formulae and determinants, theory of elimination, inductive reasoning and inductive logic. In spite of a commendable determination to write clearly, the author seems occasionally to share with no less a person than John Ruskin a tendency to make meanings obscure by over-emphasis on detail. Also, his use of the word 'generally' (for example, on pp. 51, 58, 72) is not altogether happy; supposedly he means 'usually'.

All in all, scientists would do well to read this book carefully, both for its meticulous scholarship and for its discipline. Their weighing up of what is true and what is likely to be true will be greatly helped, with corresponding confidence in their conclusions.

F. I. G. RAWLINS

Crystallization

By Dr. J. W. Mullin. Pp. ix + 268. (London: Butterworth and Co. (Publishers), Ltd., 1961.) 60s.

THE first half of this book surveys ably, with much detail, the physical chemistry, properties and phase equilibria of crystals and solutions with some reference also to melts. The final chapter summarizes in useful fashion the techniques and problems of sizing and size analyses. In between we have a chapter summarizing briefly the better-known theories of the mechanisms of nucleation and crystal growth. It would be a superhuman task to render the literature on these topics into a single, readable chapter and the author might well have condensed his material yet more without loss. As it stands, however, it is slightly incongruous to find 103 papers, presented at three symposia, dismissed in a single reference as "able summaries", while an almost irrelevant reference to gas absorption merits a whole paragraph and the beard of the late W. H. Perkin a whole sentence.

It is particularly significant that the remaining chapters, treating re-crystallization, industrial crystallization and equipment, are wholly qualitative. This characterizes the status of crystallization as a unit operation. Due to the difficulties involved and perhaps to the guarding of technical secrets, almost no quantitative investigations of the process have been published. The real utility of this book depends to a large extent, therefore, on engineering design data being made available for the process chemists and chemical engineers for whom it is intended.

S. H. BRANSON